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(22)

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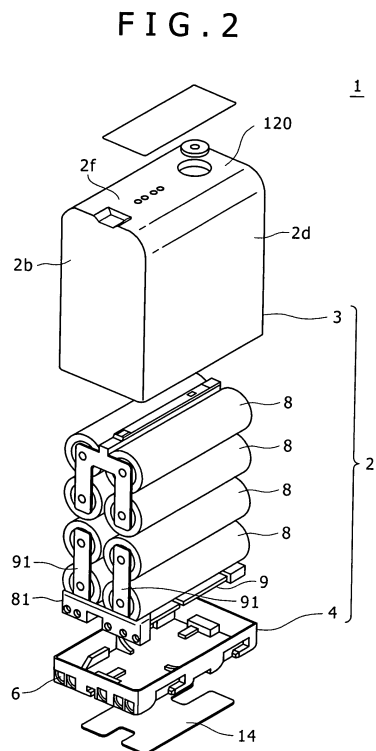
(84) Designated Contracting States: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR Designated Extension States: AL BA MK RS (30) Priority: 30.03.2007 JP 2007095323 30.03.2007 JP 2007095331 30.03.2007 JP 2007095327 30.03.2007 JP 2007095321 30.03.2007 JP 2007095322 30.03.2007 JP 2007095324	(71) Applicant: Sony Corporation Tokyo (JP) (72) Inventors: • Enari, Masayuki Tokyo (JP) • Suzuki, Katsuhiko Tokyo (JP) • Minami, Hidenori Tokyo (JP) (74) Representative: Meldrum, David James et al D Young & Co LLP 120 Holborn London EC1N 2DY (GB)
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(54)

Battery pack

(57)

A battery pack including first to fifth terminal portions sequentially arrayed at one side surface of a housing is disclosed, wherein the first terminal portion formed on one end side of the one side surface is a positive electrode terminal, the fifth terminal portion formed on the other end side is a negative electrode terminal, the fourth terminal portion formed adjacently to the fifth terminal portion is an ID terminal, and the fourth terminal portion and the fifth terminal portion are proximate to each other; and a guide portion for guiding the loading and unloading of the battery pack into and from a battery mounting portion is formed substantially in the center of the one side surface in array with the terminal portions, and the third terminal portion arranged centrally is formed at a position deviated toward the one end side or the other end side.





EUROPEAN SEARCH REPORT

Application Number
EP 08 25 0802

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	EP 0 588 728 A1 (SONY CORP [JP]) 23 March 1994 (1994-03-23) * column 9, lines 18-24 *	1-5	INV. H01M2/00
Y	JP 2006 156112 A (KYOCERA CORP) 15 June 2006 (2006-06-15) * abstract *	1-5	
X	EP 1 726 410 A2 (MATSUSHITA ELECTRIC WORKS LTD [JP] PANASONIC ELEC WORKS CO LTD [JP] PA) 29 November 2006 (2006-11-29) * figures 5a-7,10a-10b *	6-8	
X	US 6 521 370 B1 (TAKESHITA TOSHIO [JP] ET AL) 18 February 2003 (2003-02-18) * figures 2,3 *	25-28	
X	EP 0 778 627 A1 (SONY CORP [JP]) 11 June 1997 (1997-06-11) * figure 8 *	25-28	
			TECHNICAL FIELDS SEARCHED (IPC)
			H01M
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 7 October 2014	Examiner Cappadonia, Marcella
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

6-8, 25-28

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 08 25 0802

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-5

battery pack with 5 terminals and guide portion

2. claims: 6-8

battery pack with circuit board and lock recess for mounting the battery pack

3. claims: 9-11

battery pack with terminal hole for insertion of terminal pin

4. claims: 12-16

battery pack comprising a display unit, a switch to turn on the display, detection and control means

5. claims: 17-24

rectangular battery pack with identification portion

6. claims: 25-28

battery pack with insertion guide groove and lock recess

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 25 0802

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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07-10-2014

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82